



Partial translation of Kazutoshi

Page (3), upper left column to upper right column "ACTION"

[ACTION]

The crosstalk is occurred when the excessive voltage is applied in the situation where the signal electrode is shared by pixels in the same column. The crosstalk becomes more remarkable when the excessive voltages of neighboring columns differ by a large amount.

For example, if all the pixels in two columns neighboring to a column therebetween are white (display ON) while half of pixels in the column between the two columns is white (display ON) and the other half of pixels is black (display OFF), the excessive voltage applied to the half of the pixels displaying white is smaller than the excessive voltage applied to the pixels in the neighboring columns all displaying white, and thus the white in the half of the pixels displaying white is displayed darker than the white in the pixels in the neighboring columns all displaying white.

In the above configuration, inputted display dot data is added to respective columns, the luminance correction data in respective columns are obtained based on the last addition data, and the luminance correction data is added to the inputted display dot data.

That is, the gradation level of white (display ON) is increased, column by column, according to the total of excessive voltages applied to the respective columns.

Consequently, a difference in brightness due to the excessive voltages is compensated without any decrease in contrast to reduce the crosstalk.

Page (4), line 5 of upper left column to line 6 of upper right column

Back to Fig.7, the display dot data DATA' to which the luminance correction data is added by the computing means 26 is supplied to LCD (liquid crystal display apparatus) controller 3 as display data. In the meantime, the display timing signal STM outputted from the display system 1 is supplied to the LCD controller 3.

As a result, a monochromatic image in accordance with the display dot data DATA' is reproduced on the simple matrix drive type liquid crystal panel (not shown).

In the Example of Fig.7, upon the addition of the display dot data to respective columns, as the total of the display dot data DATA in respective columns becomes large, the luminance correction data formed becomes small, and the resulting luminance correction data is added to the display

dot data DATA. Then, the monochromatic image in accordance with the display dot data DATA' to which the luminance correction data is added is reproduced on the liquid crystal panel.

That is, in the Example of Fig.7, since the gradation level of white is increased upon its display, column by column, according to the total of the excessive voltages applied to respective columns, a difference in brightness due to the excessive voltages can be compensated without any decrease in contrast to reduce the crosstalk.

Page (5), line 19 of under right column to page (6), line 2 of upper left column

As described above, also in the present Example, since the luminance is increased upon its display, column by column, according to the total of the excessive voltages applied to respective columns of the liquid crystal panel, the effect similar to the Example of Fig.7 can be obtained.

Page (6), line 13 of upper left column to line 5 of upper right column, "EFFECT OF THE INVENTION"

[EFFECT OF THE INVENTION]

As explained above, according to the present invention, since the gradation level of white is increased, column by column, according to the total of the excessive voltages applied to respective columns of the liquid crystal panel, a difference in brightness of respective columns due to the excessive voltages applied can be compensated to reduce the crosstalk. Even if a number of scanning electrodes is increased, the contrast does not deteriorate as is in the voltage averaging method and thus the present invention is quite useful.

Further, an image reproducibility in case where the display dot data (video signal) is the data to which a gamma correction is performed can be improved by selectively providing a function of reversed gamma correction.